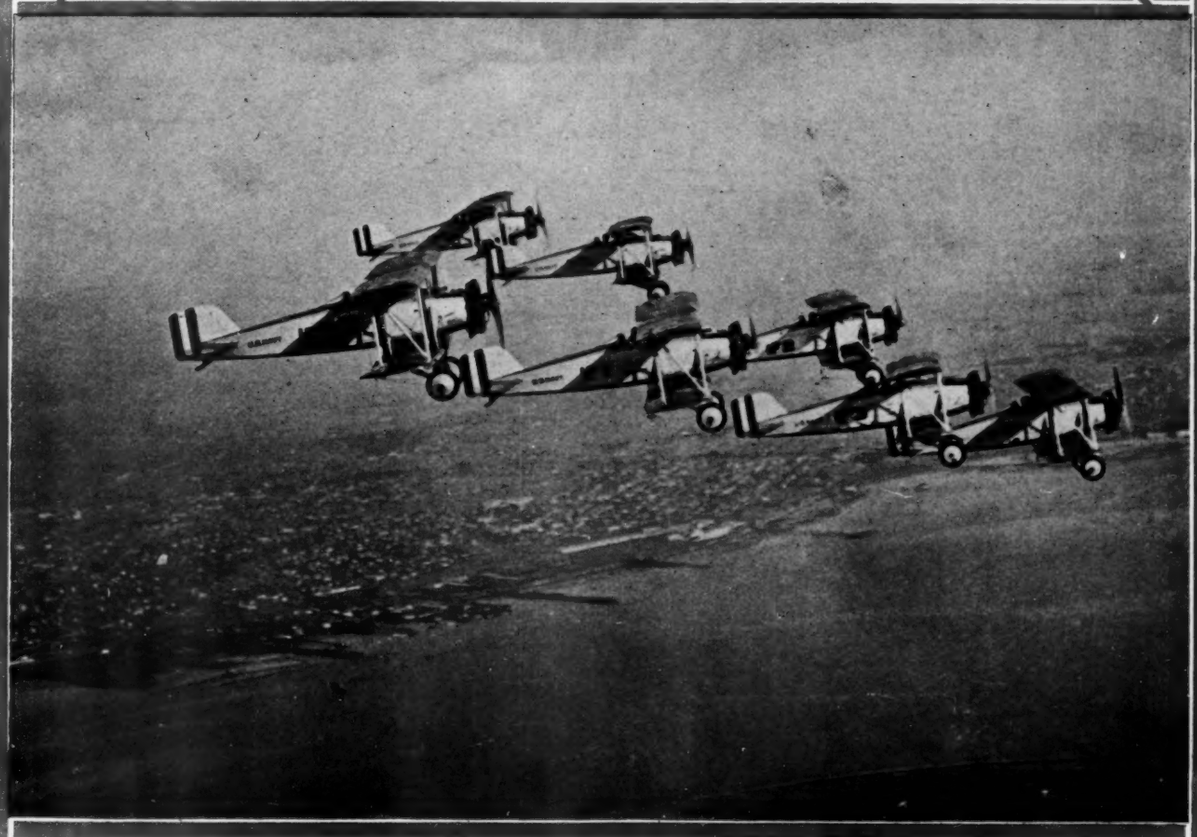
AVIATION

The Oldest American Aeronautical Magazine

MARCH 17, 1924 **Issued Weekly** **PRICE 10 CENTS**



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VOLUME XVI

NUMBER 11

SPECIAL FEATURES

SHUTTING DOWN THE AIRCRAFT INDUSTRY

THRILLING STORY OF A RESCUE IN MID-AIR

OFFICIAL WORLD RECORDS RECOGNIZED BY F.A.I.

REVIEW OF BRITISH CIVIL AIR TRANSPORT SUBSIDIES

THE GARDNER, MOFFAT CO., INC.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK

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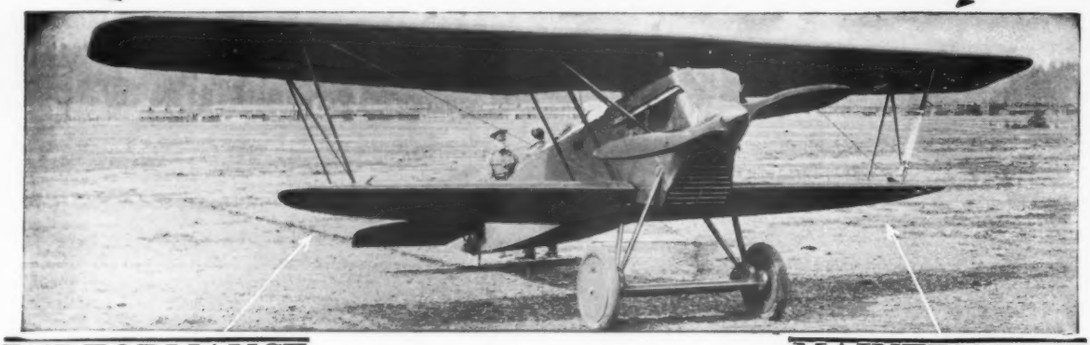

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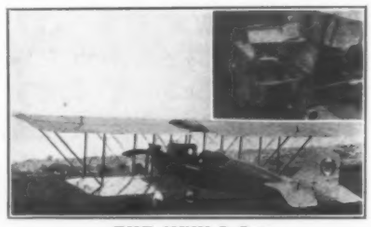

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MARCH 17, 1924

AVIATION

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Published every Monday

CONTENTS

Editorials 281
Shutting Down the Aircraft Industry 282
Thrilling Rescue of Girl Parachute Diver 283
Evolution of British Airway Subsidies 284
Air Mail Pilot Pearson Killed 284
Lt. F. V. Grant Wins Curtiss Trophy 284
Air in the Dictionary 284
Official World Records Recognized by F.A.I. 285
This Week's Cover 288
Entry Fees for Dayton Races 288
Skywriting Co. Wins Patent Suit 288
Airports and Airways 289
United States Air Forces 291

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AVIATION

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PUBLISHER'S NEWS LETTER

Of course, the one subject uppermost in the mind of a publisher of an aeronautical magazine is the rapidly dwindling number of aircraft constructors that have any business and who advertise. This week, as our readers will see, The Glenn L. Martin Co. for the first time since AVIATION was established, in 1916, is using a half page instead of a full page of advertising space. Curtiss has cancelled all advertising in aeronautical papers. With the L.W.F. plant shut down, Glenn Martin with no business, Thomas-Morse idle, Aeromarine struggling to keep going on experimental work, and all the others, with the possible exception of Boeing and Vought, wondering how long they can hold on, the publisher is confronted with a serious situation.

* * * *

A manufacturing plant can shut down during slack times, a business man can take a vacation, but a publication like a railroad has to keep running if it is to meet its schedule. AVIATION is not alone in its troubles. All the older aeronautical papers have disappeared and we are informed that one of the newer papers represents a loss of $50,000 in its short spurt for fame. The competition in the field has been complicated by a number of other factors which will soon be made less irksome. But our readers will probably be glad to know that even at great losses and without adequate encouragement from the industry we intend to "carry on" until the skies clear of the present dark clouds.

* * * *

On another page will be found more about the practical shut-down of the aeronautical industry in the United States. This information may startle some of our foreign readers, whose support and appreciative letters we value so highly. The English, French, German and even Russian aeronautical papers reflect the state of flying in these countries. Each of them contain page after page of announcements of those firms that supply the governments and even of those that don't but hope to. In this country, how different the situation is can be seen at a glance. The trouble does not lie with the manufacturers. They have little or no business and their prospects are not bright. The whole trouble seems to lie in Washington, not necessarily with the officers of the Services, but with the system of hand to mouth planning for our aerial national defense. If the five-year program that has been recommended were adopted by the Army Air Service hope for the future might revive. Unfortunately, this report seems to be lost in mazes of War Department red tape. As will be seen from the Curtiss Company's report, competition in production and engineering by the Services, and the awarding of contracts below prodution cost has put the whole industry in a position where the plants are shut down or where contracts are let at prices giving little hope for even a reasonable profit.

* * * *

Such a condition cannot last. Two things are inevitable. Either the aeronautical industry will be forced into bankruptcy or else a shake-up will have to take place in the Washington situation. The officers in charge of government air services should act promptly and fearlessly. The National Aeronautic Association should use its strength to help "Make America first in the Air." The Aeronautical Chamber of Commerce should give the public facts and figures regarding the whole industry. Finally it is up to the President to awaken Congress to the perils of our aeronautical defencelessness both actual and potential.

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Encouraging Gliding Experiments

LITTLE encouragement has been given in this country to the development of the glider or "sailplane." That this field should so far have remained uncultivated is most unfortunate, for it was the Wright brothers, with whom practical aviation begins, who were the first to conduct successful gliding and hovering experiments with heavier-than-air craft.

Interest in gliders here should be revived, not only for the fascinating sport such machines offer, but also for the scientific value of the data concerning the formation of air currents and means of mastering them that would be collected. The only way of stirring up this now dormant interest is by means of attractive trophies and prizes. It is confidently believed that if such a stimulus were forthcoming, the idea of motorless flight would be taken up here as enthusiastically as it has been in Germany, France and England.

To show the amount of encouragement gliding experiments receive abroad it is sufficient to state that the prize money offered for the French motorless flight competition which was held last summer far exceeded that offered for the Pulitzer Trophy race in St. Louis. This is the more remarkable when it is considered that the machines entered in the St. Louis race cost many thousands of dollars whereas gliders can be built for a few hundred dollars.

While gliding experiments have lagged in France and in England since the successful development of the "light plane" type of aircraft—and partly because of it—in Germany experiments continue along the original line of thought. Apparently, the German experimenters do not consider the problem of motorless flight solved now that gliding with ascending currents has been proved possible for hours at a stretch. On the contrary, they are now directing their efforts toward "gust soaring," that is, flying under the impulse of air currents of varying intensity and direction, which are mostly independent of the formation of the ground. This is an art as yet practically unknown, for which reason it is difficult to predict the results it may lead to. But the very fact that here is a sphere of aeronautical investigation virtually untouched should spur us to enter it. The country of the Wrights cannot afford to do less.

On Lack of Cooperation

STATISTICS show that fatal air accidents occur much more frequently among a certain type of irresponsible flier as they do among fliers who are backed by responsible companies or among fliers of those countries which have air navigation regulations.

There is no doubt that with the present lack of regulations many unfit pilots are flying machines that have outlived their usefulness. Licensing has worked well in other countries. The public has a right to demand it; yet another session of Congress seems to be slipping by without the passing of federal air legislation.

From our contact with manufacturers and fliers throughout the country we believe that they desire some sort of regulation. We also know that there is some violent opposition to the bills now before Congress. If the present session of Congress does not pass some form of air legislation it is entirely the fault of those interested in aeronautics. The present bills are not hasty legislation; everyone interested has had years to discuss their contents. There will be hearings on the bills. The opposition is a sad commentary on the lack of cooperation in the aeronautical field. How long will it be before those interested in flying will be able to unite for a common cause?

Air legislation will only result from some agreement of all those interested in the development of aeronautics, and this includes the industry from the largest organization to the one man shop, the national and local aero organizations, the air services and lastly the flier. It appears that in spite of every effort made by Congressman Winslow to give everyone an opportunity to be heard the draught as introduced is being severely criticized. We urge that this subject be approached in a get-together spirit and not in one of suspicious hostility.

All Honor to the Air Mail

THE wonderful record of efficiency and reliability the United States Air Mail Service has set in carrying the mail day in, day out, from New York to San Francisco has now lasted so long that it is generally accepted as a matter of course. What this record involves in the matter of consummate flying skill, physical hardihood and the will to win is seldom, if at all, realized by those not intimately in touch with the Air Mail. Few people appreciate what it means to fly the mail over the mountains—be it the Alleghanies or the Rockies—in winter time, with blinding snowstorms which blot out all landmarks and overload the ships until they lose all maneuverability. And yet, the Air Mail pilots "carry on" in weather no one else would fly in, true to their slogan that "the Mail must go through."

It is only when one of them falls in the accomplishment of his duty, as Brooks Hyde Pearson did the other day, and others did before him, that we are brought to a full realization of the admirable *esprit de corps* which moves the Air Mail Service. All honor to these peaceful soldiers of an unrelenting war against the forces of nature.

Shutting Down the Aeronautical Industry

Critical State of Industry Shown by General Inactivity Of Private Aircraft Plants

The following letter from the Curtiss Aeroplane and Motor Co., Inc., of Garden City, N. Y., to AVIATION in which it states that it is discontinuing all publicity in the aeronautical press gives an idea of the present deplorable condition of one of the leading factors of the aeronautical industry. The report to stockholders which is also reprinted gives definite reasons for curtailment.

A Letter from the Curtiss Company

The letter to AVIATION is as follows:

"As you know, the policy of the Curtiss Company both during and since the war has been to lend its support to all those interests which are devoted to the development of the art of aviation in this country. It is a personal satisfaction to realize that the engineering organization of the Company has produced such a large proportion of military airplanes for our Services, as well as those special designs of planes and motors which have brought to this country the world's speed records for both airplanes and seaplanes.

"Existing conditions have forced our Air Services into competition with the industry both in engineering and construction and have apparently established price as the controlling factor in procurement rather than excellence of performance and construction. As this Company has always been primarily a creator, we are now forced to restrict our activities along all lines of aviation promotion to meet the present situation, and I am therefore reluctantly forced to withdraw our advertising from your paper, as well as all other trade periodicals. We realize the value of the work AVIATION is doing and for that reason regret most sincerely that this action is necessary.

"I am confident that in the not distant future this country will be brought to a realization of the necessity of fostering aviation in fact as well as in theory. Our Government must support this industry, the existence of which is necessary both for national defense and the development of modern transportation."

Report to Curtiss Stockholders

The annual report to stockholders for 1923 is given below.

"The outlook for the entire airplane industry is vague and uncertain. We feel that the stockholders are entitled to know the causes for this uncertainty in which your company shares. First, we are meeting with a sharp increase in the direct competition of our own government in production carried on in government operated plants. Second, it appears to be a settled policy of the government whenever possible to buy airplanes below the cost of production, and in no case to permit a percentage of profit on production orders to be higher than the customary formula in the manufacture of articles of standard type for which there is a constant demand. Third, there is a strong tendency toward a government monopoly of engineering and development work and the consequent elimination of private incentive.

"In view of these conditions a large proportion of the capital invested in the airplane engineering industry at the end of the war has been either destroyed or driven out of the industry, and so far as we know, practically no new capital has embarked in the industry or is now available for it.

"In order to meet this situation your company has greatly curtailed and will continue to curtail its engineering force whose work since 1920 has brought back to America all the important speed records of the world and established new standards of performance which the nations of Europe are now striving to equal. Curtiss ships, powered with Curtiss motors, have won the Pulitzer Trophy in 1921, 1922, and 1923 and established new records in each of these years. We do not plan to be represented by a new plane in the race for the Pulitzer Trophy in 1924, nor in subsequent years.

"The necessity for this vital change should be understood by the stockholders. The fact is that outstanding accomplishment in the industry for the benefit of the Army and Navy does not lead to the placing of substantial contracts with those whose capital has been spent in the accomplishment of great adventures. On the contrary, such accomplishments usually lead to financial losses. As soon as new standards are set, at great expense in effort and in money by private companies, their accomplished successes are immediately copied by others who have no great engineering expense to absorb. Consequently, units in the industry organized solely for small production work can and do sell products below the cost to the original creator of the type of motor, plane, or accessory involved. Any important development, such for example as the new wing on the Curtiss Racer of 1923, developed at the expense of your company, is immediately broadcasted to the trade by the government so that thereafter the value of the invention ceases to its inventor and inures if at all, to the lowest bidder on construction contracts. Taking as a specific case an advanced type of plane for use of the United States Navy, your company, overcoming new and unexpected problems involved in the experimental contract, spent several hundred thousands of dollars of its own funds and produced a ship superior in important characteristics to any other of its type ever constructed. Nevertheless the proprietary rights were reserved by the government and it now appears likely that a quantity order for these ships will be offered to public competition so that the fruit of our expenditure may be gathered by those who do not risk capital to accomplish advances in the art on behalf of your government.

"Your company will of course maintain at all times a laboratory from which advance types may be developed as they are needed, but will find it difficult to compete in costs with those who do not maintain such a laboratory and only receive contracts free of all engineering risks.

"In our industry there is no patent, copyright, or trade mark protection to the creator of airplanes. Patent protection was surrendered during the war for the nation's benefit and at the request of the government, and any builder whether or not he ever owned a patent or evolved an improvement, can and does use all the important basic patents on practically the same basis as the inventor.

"It is obviously necessary under these conditions to cease creative effort and abandon definitely the policy which has been the Curtiss policy from the beginning of the art, namely to regard every experimental contract as a cooperative effort with the government and to accomplish the result sought after regardless of the cost to your company."

What the Factories Are Doing

From the above letters it will be apparent that the Curtiss Company has reached a point where its valuable contributions to the advance of American aviation can no longer be counted on and where, unless some orders on a profitable basis are quickly forthcoming, it will be in the same position as the other aircraft manufacturing concerns.

Consider the present situation of the various companies. While it is difficult to secure accurate information regarding the exact status of each company owing to official reticence concerning orders, the following summary may give approximately the situation.

The L.W.F. Company which has been under a receiver has been shut down for a month or more. While it is difficult to learn the exact figures, we understand that the government has given this company half a million dollars' worth of airplane orders which are as yet unfilled.

The Glenn L. Martin Company is idle. A friend writes: "While in Cleveland I called on the Glenn L. Martin Company. It certainly is a shame to see such a beautiful plant absolutely idle."

The Aeromarine Plane and Motor Company is likewise idle. A letter from one of those close to this company aptly describes the present situation in the following terms: "As far as I can see, the industry is in a bankrupt position right now due not to the fact that not sufficient money has been appropriated but the way this money has been handled. This is not directed entirely at those in charge of the expenditures but as much to the industry who have been almost childish in their attitude toward getting business and handling the business after it has been obtained."

The Consolidated Aircraft Corporation, which has succeeded to the Gallaudet Company, will be without orders when it completes the training planes it has on order for the Army Air Service.

The Chance Vought Corporation, which does business exclusively with the Navy, is completing some UO1's and UF's.

The Loening Aeronautical Engineering Corp. has no orders for planes, but is keeping its plant open by doing some engineering development work.

The Elias Co. has finished its bomber and so far as we know has no orders ahead.

The Cox-Klemin, Bellanca, Lawrence Sperry, and Huff-Daland companies are all doing little work either for the government or in commercial planes.

The Wright Aeronautical Corp. has orders for motors, but no airplane orders that have been made public.

The Douglas company, upon completion of the four World Cruisers for the Army Air Service, will have little if any business ahead of it if our information is correct.

The Thomas-Morse Company has been idle for several months, and has no orders that are made public. Their development work is proceeding, however.

The Boeing Company is the one American airplane company that seems to have received any orders of consequence recently, the Navy having ordered a number of training planes.

Fokker has the old plant of the defunct Witteman Aircraft Company awaiting orders.

Such, in a general way, is the situation of the American aeronautical industry at the present time. It reflects a wrong condition that needs immediate correction or the national defense of our country will be placed in jeopardy.

Thrilling Rescue of Girl Parachute Jumper

The following account of the daring rescue of a girl parachute jumper by pilots of the Gates Flying Circus at Ellington Field was written by Fred S. Willbur for The Houston Chronicle. As a human interest story it equals any chapter of fiction.—EDITOR.

"Aw, gee, I didn't make the jump ! Now I suppose Mr. Gates won't pay me."

These were the first words of Rosalie Gordon, chorus girl, after being dragged from underneath the axle of an airplane with one of her rescuers, Milton Girton (Diavolo), Sunday afternoon at Ellington Field.

And that rescue was one of the most daring feats of midair ever performed in the history of aviation either for the screen or over the battle-scarred fields of France.

But Ivan R. Gates, general manager of the Gates flying circus, which put on the exhibition for the benefit of the 36th Division Air Service, not only gladly paid Rosalie, but also gave the five Gates fliers who participated in the thrilling rescue, Clye E. (Upside Down) Pangborn, Freddy Lund, dare-devil aerobat; Milton Girton (Diavolo), the world's foremost aerobat; Tommie Thompson, dean of fliers, and Billy (Loop King) Brooks, an extra $100 each for their reckless defying of death in effecting that rescue.

On the ground for the full 40 min. that the girl swayed to the breeze, strapped in her parachute that caught on the under rigging of the plane when she leaped overboard 4000 ft. above the earth, Gates rushed frantically about, tearing his hair and offering everything he possessed in the world to any one who would bring Rosalie down safely.

When the time arrived for Rosalie's stunt she was taken up strapped to the parachute in Pangborn's ship. Diavolo rode in the rear cockpit with the girl and helped her in her leap over the fuselage and the beginning of her downward plunge.

It had rained in the morning and the sky was low with clouds. The plane was so high that momentarily it half disappeared in the mists. In the jump the girl's weight (she is of slight build), was insufficient to loose the parachute, which was attached to the axle of the landing gear by means of a ring encircling the top and middle of the "chute."

Twice Pangborn winged across the field, flying low to attract the attention of those below and bring up succor. The crowds unsuspectingly gazed at the tragedy thinking it but a part of the show.

In the meantime Diavolo was busy. When he saw that the "chute" was caught he crawled to the landing gear and for 30 min. battled with fast oozing strength to pull the girl up to a perch on the axle and comparative safety. But he was weakened through over an hour's daredevil stunts just before.

Boarding a Plane in Flight

Slowly it dawned upon the crowd of over 5000 people that the brave girl faced an awful death. It was impossible to land the plane without killing her. Planes of the Standard type, and this one was equipped with an 180 hp. Hisso motor, glide to the ground at express train speed. Thirty miles an hour is the slowest landing. To try and effect a landing with Rosalie pitching and swaying to the lurch of the plane and the rush of the wind meant that she would be dashed to pieces and her body dragged and mangled beneath the tail skid. As it was, her "chute" to which she still was attached did drag the ground and was torn to shreds by the rough ground and tail group.

Plane after plane took the air and sped swiftly up, up, up to aid those battling high in the heavens with grim death. When one plane missed cutting Rosalie loose as it winged close under her plane and swaying form, another plane right behind would essay the feat. Intrepid hearts beat in breasts of those who crouched on the upper wing surfaces, knives in hand, to cut her loose, either landing her on their own planes or letting her drop continue and trust to good fortune that her chute would open as it was released.

All efforts failing by this method, Freddy Lund really led the rescue. Riding in a plane piloted by Tommy Thompson, the latter jockeyed his ship on an even keel right up behind Pangborn's plane and shoved the wing of his ship right smack up against the wings of Pangborn's. This itself was the most daring feat ever pulled in the history of aviation. The great danger was that both ships would become locked in a death embrace and both plunge to the earth with their precious freight of five human lives.

Just as Thompson's ship got within reaching distance, Lund stretched out a hand while standing between the wings of Thompsons ship, grasped a strut on Pangborn's ship and then leaped from plane to plane, slipping, crawling, scrambling to maintain his precarious hold. For a moment or two he held on, gasping for breath and then as his strength began to return he made his way rapidly down on the axle where Diavolo was vainly trying to pull the girl up to safety.

Changing Pilots

But fate jockeyed with flesh and blood as Lund and Diavolo endeavored to pull the girl up to within reach of their outstretched eager hands. Lund's efforts spent his strength and he was able to do little but weakly pull on the rope to which the parachute was attached. Twenty feet below swayed the suspended Rosalie.

Clasping a strut to keep himself from falling, and feeling weakness slowly overpowering him, Lund laboriously crawled back up the landing gear, whispered to Pangborn to give him the stick, or controls, and for Pangborn to go down to Diavolo's aid. Then Lund piloted the ship as Pangborn descended the under rigging supports and joined Diavolo.

Pangborn is slight of build but strong. Crooking one leg over the axle and hanging to a strut by one hand, he slipped the other foot down and caught a toehold under the girl's belt. She immediately clasped her arm around Pang's foot. Diavolo then did a like feat and she was pulled up where their hands grasped her firmly and she was pulled up on the axle, a wooden crosspiece three inches wide between the wheels.

There sat the three for a brief spell, fighting for strength as the plane sped across the sky. Then Pangborn climbed back in the cockpit and took over control of the ship, landing immediately, with Diavolo and Rosalie clinging to the axle and landing gear struts. A beautiful landing was effected with little jar compared to the way some planes hit the ground, but both Rosalie and Diavolo were pulled from beneath the axle and the ground, a space of 12 in., considerable bruised, muddied, and their clothing torn. Luckily, no bones were broken and the pair were hurried to field hospital quarters and turned over to Captain Louis Pavelek, field surgeon.

Evolution of British Airway Subsidies

The Imperial Air Transport Co., Ltd., of London, which was formed from the merger of the four existing British airway companies—Daimler Airways, Handley Page Transport, Instone Air Line and British Marine Air Navigation Co.—will take over the operations of these concerns on April 1, next. The new company will operate under £1,000,000 government subsidy scheme, spread over a period of ten years, which has been outlined in these columns before.

A report to the Department of Commerce from Assistant Trade Commissioner William M. Park, London, gives some interesting information on the evolution of British airway subsidies from their inception in 1921, when the heavily subsidized French airways forced the British to follow suit.

The New Airway Company

The Imperial Air Transport Co., by the subsidy agreement, is to have a capital of £1,000,000. The government exercises no direct control over operations, other than by the appointment of two directors, except such as may be exercised from time to time over all civil flying. The government has the right to take over the company's aircraft engines and plant in the event of war or imminence of hostilities. No restrictions as to routes, number of flights, type of machines, etc., are made, as it is assumed that it is in the self-interest of the directors to operate the company to the best commercial advantage at minimum cost. British personnel and material are to be exclusively employed. Some of the leading business talent of the United Kingdom has been taken into the management, including Sir Eric Geddes, as director and chairman, and Sir George Beharrel and Lord Invernairn as directors; the two government directors have not yet been announced; each of the four constituent companies will also elect a director.

Subsidy of air service in England began in 1921 as a result of the abandonment by the regular British companies, for financial reasons, of service to the continent, leaving the field wide open to French companies operating under subsidies. A "temporary scheme" of subsidies was introduced on March 19, 1921, and agreements were made by the Air Ministry with the Handley-Page Transport, Ltd., and Samuel Instone & Co., Limited, for seven months, March-October, 1921, which agreements were extended to March 31, 1922. These subsidies were for London-Paris service of one flight daily, subject to weather conditions. The maximum liability of the government was fixed at £44,100 for each company. The amount actually paid to the two companies was £85,671, leaving the companies to stand a loss of £5,398, the operating deficit for the period March 19, 1921-March 31, 1922, being £91,069.

The "Permanent Scheme"

On April 1, 1922, a "permanent scheme" of subsidies was introduced, to replace the expired temporary arrangement. This provided for London-Paris service by the Handley-Page and Instone companies and by the Daimler Hire, Ltd., and for a London-Brussels service by the Instone company. The government agreed to give for the London-Paris service a cash subsidy of 25 per cent on gross earnings and in addition a grant of £3 per passenger and 3d. per lb. of goods and mail carried. It agreed also to provide not more than 50 per cent of the total fleet operated, on a hire purchase system, and to pay 50 per cent of the premiums on insurance policies taken out by the companies. The London-Brussels agreement was similar to this, except that maximum liability was limited to £20,000 in any one year. The total maximum liability of the Air Ministry was filed at £200,000 a year for all subsidized service.

The "permanent subsidy" estimates had been based on an assumption that passenger traffic would double in 1922, which it did not do, and the subsidy was insufficient. Accordingly the terms of the agreement were revised and *ex gratia* payments of £55,039 were made to cover losses in the period April-June, 1922, besides the £31,130 in subsidies earned in that period.

The Revised Scheme

The revised scheme was based on elimination of competitions among the state-supported companies and contemplated extension of service into continental Europe, with at least one internal air line in Great Britain. Lump sum payments were substituted for payment dependent on gross income, subject to minimum performance, with fines for non-performance and the hire-purchase scheme was dropped. Most of the equipment furnished by the Air Ministry was made a free gift to the companies.

Under this scheme four services were approved. They were: (1) London-Paris, operated by Handley-Page, minimum service 300 flights annually in each direction, maximum annual subsidy £15,000; (2) London-Brussels-Cologne, operated by Instone Air Line, minimum flights 300 each way, maximum subsidy £25,000; (3) Manchester-London-Amsterdam-Hamburg-Berlin, minimum mileage 253,846, maximum subsidy £55,000; (4) Southampton-Cherbourg-Havre-Channel Islands, operated by British Marine Air Navigation Co., minimum mileage 60,000, maximum subsidy £10,000.

This agreement was for the period Oct. 1, 1923-March 31, 1924. Cash subsidies paid under the agreement during this period amount to about £152,500. The government also gave the four companies equipment valued £85,500 and agreed to contribute a maximum of £66,000, making a total for the period of £304,000.

This agreement is now to be replaced by the agreement providing for the £1,000,000 subsidy over ten years to the four companies consolidated into one, beginning April 1, 1924.

The apparent reduction from £300,000 to £100,000 a year in air subsidies will, it is expected, be offset by the certainty contained in the ten year tenure of the guarantee, by economies of consolidated operation and by the payment of the subsidy not by tenths per annum, but in larger amounts in the first years (£137,000 for the first four years) and lesser in the latter years, when the company is expected to be able, through increased revenues, to reach or approach self support.

Air Mail Pilot Pearson Killed

AVIATION deeply regrets to announce that Air Mail Pilot Brooks Hyde Pearson was killed March 8 in the Alleghanies while flying the mail from Bellefonte to Cleveland. His body was found in the burned wreckage of his plane late that day on the Porter farm, near Curwensville, Pa., by M. C. Porter who had spent the day searching for the missing plane.

The plane was seen above the village in the afternoon fighting a heavy snowstorm. A short time later a crash was heard and the sound of the engine stopped. It is believed that Pearson crashed by running into high trees which he did not see on account of the thick weather. The ground where the wreckage of the plane was found is very high, with many peaks.

Lieut. V. F. Grant Wins Curtiss Trophy

The Curtiss Trophy race, held March 8 at Miami, Fla., was won by Lieut. V. F. Grant, U.S.N., at an average speed of 116.1 mi./hr.

Air in the Dictionary

The Aeronautical Chamber of Commerce on invitation from the Funk & Wagnalls Co. prepared the material used in the aviation section of the 1923 edition of their new Standard Dictionary.

Official World Records Recognized by the F.A.I.

Translated from the Official French Text by the Contest Committee of the National Aeronautic Association of U. S. A.

Following is a list of the official world records for all classes of aircraft to date of March 1, 1924, as recognized by the International Aeronautic Federation (F.A.I.). This body, the sole international authority governing the aeronautic sport, was formed in 1905 for the purpose of recording aeronautic performances throughout the world in accordance with uniform standards.

The authority of the F.A.I. in aeronautic sport matters is now recognized and duly enforced by the national aero clubs or aeronautic associations of twenty-four countries, namely: Argentina, Austria, Belgium, Brazil, Chile, China, Czechoslovakia, Denmark, Finland, France, Great Britain and Ireland, Italy, Japan, Netherlands, Norway, Poland, Portugal, Rumania, Serb-Croate-Slovene Kingdom, Spain, Sweden, Switzerland, Uruguay and United States. The headquarters of the F.A.I. are in Paris, France.

The officers of the F.A.I. are as follows: President, Prince Roland Bonaparte; vice presidents, Fernand Jacobs (Belgium), Frank S. Lahm (United States), Count Henry de la Vaulx (France), Col. Merwyn O'Gorman (Great Britain and Ireland), Chev. Arturo Mercanti (Italy), Ruiz Ferry (Spain), J. Van den Berch van Heemstede (Netherlands); secretary general, Paul Tissandier (France); recording secretary, Lt. Col. Amundson (Sweden); treasurer, Georges Besançon (France).

In the list which follows the records are given in the following order: Type of record, name of country, names of pilot and aid or passenger, name or type number of aircraft, date, performance.

CLASS A. (SPHERICAL BALLOONS)

1st Category (600 cu. m.)

Duration—(France) Gaston Fleury and George Fleury, Aug. 15-16, 1923, 19 hr. 43 min.

Distance—(France) George Cormier, July 1, 1922, 804.-173 km., 499.69 mi.

Altitude—No record.

2nd Category (601-900 cu. m.)

Duration—(France) Jules Dubois, May 14-15, 1922, 23 hr. 28 min.

Distance—(France) Georges Cormier, July 1, 1922, 804.-173 km., 499.69 mi.

Altitude—No record.

3rd Category (901-1200 cu. m.)

Duration—(France) Jules Dubois, May 14-15, 1922, 23 hr. 28 min.

Distance—(France) Georges Cormier, July 1, 1923, 804.173 km., 499.69 mi.

Altitude—No record.

All Categories

Duration—(Germany) H. Kaulen, Dec. 13-17, 1913, 87 hr.

Distance—(Germany) Berliner, Feb. 8-10, 1914, 3052.7 km., 1896.9 mi.

Altitude—(Germany) Süring and Berson, June 30, 1901, 10,800 m., 35,424 ft.

CLASS B. (AIRSHIPS)

Duration—(Italy) Castracane and Castruccio, P-5, June 25, 1913, 15 hr.

Distance—(Italy) Castracane and Castruccio, P-5, July 30, 1913, 810 km., 503.3 mi.

Altitude (France) Cohen, Conté, June 18, 1922, 3080 m., 10,102 ft.

Maximum Speed—(Italy) Castracane and Castruccio, P-5, July 30, 1913, 64.8 km./hr. 40.26 mi./hr.

CLASS C. (AIRPLANES)

Returning to Point of Departure Without Refueling

Duration—(United States) Lts. O. G. Kelly and J. A. Macready, U. S. Army T2, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 16-17, 1923. 36 hr. 4 min. 34 sec.

Distance—(United States) Lts. O. G. Kelly and J. A. Macready, U. S. Army T2, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 16-17, 1923. 4050 km. 2516.55 mi.

Altitude—(France) Sadi Lecointe, Nieuport-Delage, Hispano 300 hp., at Issy-les-Moulineaux, France, Oct. 30, 1923. 11,145 m., 36,555 ft.

Maximum Speed—(United States) Lt. A. J. Williams, U.S.N., Curtiss R2C1, Curtiss 500 hp., at Mitchel Field, Mineola, L. I., Nov. 4, 1923. 429.025 km./hr., 266.59 mi./hr.

Speed for 100 km. (62.14 mi.)—(United States) Lt. A. J. Williams, U.S.N., Curtiss R2C1, Curtiss 500 hp., at St. Louis, Mo., Oct. 6, 1923. 392.379 km./hr., 243.81 mi./hr.

200 km. (124.27 mi.)—(United States) Lt. A. J. Williams, U.S.N., Curtiss R2C1, Curtiss 500 hp., at St. Louis, Mo., Oct. 6, 1923. 392.154 km./hr., 243.67. mi./hr.

500 km. (310.69 mi.)—(United States) Lt. Alex Pearson, U.S.A., Verville-Sperry R3, Wright 350 hp., at Wilbur Wright Field, Dayton, Ohio, March 29, 1923. 270 km./hr, 167.8 mi./hr.

1000 km. (621.37 mi.)—(United States) Lt. Harold R. Harris, U.S.A., DH4B, at Wilbur Wright Field, Dayton, Ohio, March 29, 1923. 205 km./hr., 127.42 mi./hr.

1500 km. (932.05 mi.)—(United States) Lt. Harold R. Harris, U.S.A., DH4B, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, March 29, 1923. 184.03 km./hr., 114.35 mi./hr.

2000 km. (1242.74 mi.)—(United States) Lt. Harold R. Harris, U.S.A., DH4B, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 17, 1923. 183.83 km./hr., 114.22 mi./hr.

2500 km. (1553.42 mi.)—(United States) Lts. O. G. Kelly and J. A. Macready, Army T2, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 16-17, 1923. 115.60 km./hr. 71.83 mi./hr.

3000 km. (1864.11 mi.)—(United States) Lts. O. G. Kelly and J. A. Macready, Army T2, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 16-17, 1923. 115.27 km./hr., 71.62 mi./hr.

4000 km. (2174.79 mi.)—(United States) Lts. O. G. Kelly and J. A. Macready, Army T2, Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, April 16-17, 1923. 113.93 km./hr., 70.79 mi./hr.

Returning to Point of Departure Refueled in Flight

(New Category recognized by the F.A.I.)

Duration—(United States) Lts. L. H. Smith and J. P. Richter, DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 37 hr. 15 min. 48.8 sec.

Distance—(United States) Lts. L. H. Smith and J. P. Richter, DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 5300 km., 3293.26 mi.

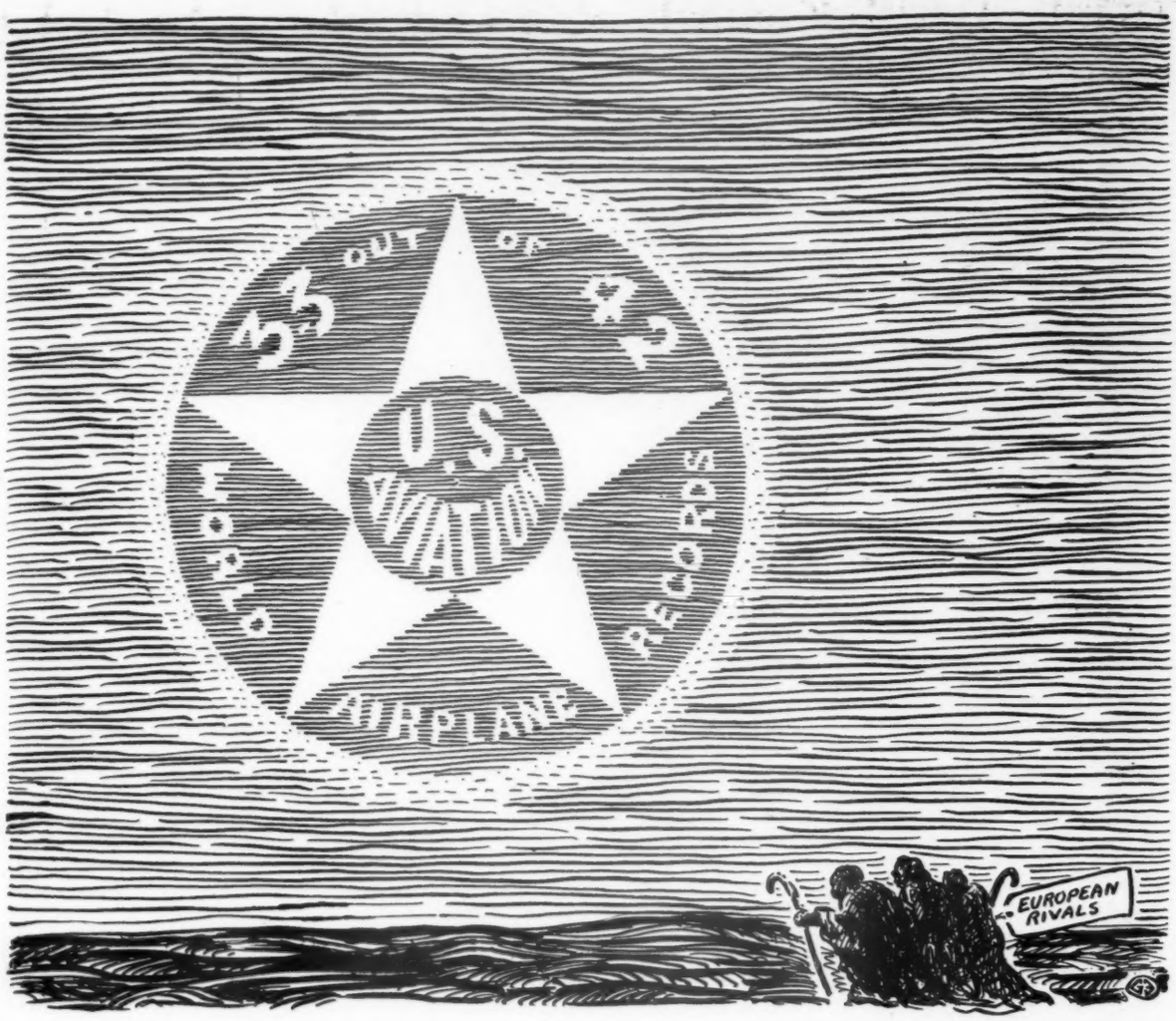
Altitude—No record.

* *Speed for 100 km. (62.14mi.)*—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A.,DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 140.96 km./hr., 87.59 mi./hr.

* *200 km. (124.27 mi.)*—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 142.29 km./hr., 88.41 mi./hr.

* *500 km. (310.69 mi.)*—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 143.48 km./hr., 89.15 mi./hr.

* *1000 km. (621.37 mi.)*—(United States) Lts. L. H.



Specially drawn for AVIATION by G. W. Edwards

The Wise Men of the East

Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 144.56 km./hr., 89.82 mi./hr.

* *1500 km. (932.05 mi.)*—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 144.53 km./hr., 89.81 mi./hr.

* *2000 km. (1242.74 mi.)*—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 144.01 km./hr., 89.48 mi./hr.

2500 km. (1553.42 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 142.78 km./hr., 88.72 mi./hr.

3000 km. (1864.79 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 141.87 km./hr., 88.15 mi./hr.

3500 km. (2174.79 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 142.17 km./hr., 88.34 mi./hr.

4000 km. (2485.48 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 142.00 km./hr., 88.23 mi./hr.

4500 km. (2796.16 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug 27-28, 1923. 142.36 km./hr., 88.45 mi./hr.

5000 km. (3106.85 mi.)—(United States) Lts. L. H. Smith and J. P. Richter, U.S.A., DH4B, at Rockwell Field, San Diego, Calif., Aug. 27-28, 1923. 142.53 km./hr., 88.55 mi./hr.

With Useful Load of 250 kg. (551 lb.)

Duration—No record.

Distance—No record.

Altitude—(France) Adjudant Bury, Bréguet, Renault 300 hp., at Bourget, France, June 1, 1923. 8,466 m., 27,768 ft.

With Useful Load of 500 kg. (1102 lb.)

Duration—No record.

Distance—No record.

Altitude—(Spain) Captain Thierry, Bréguet Sesquiplane, Type 19A2, Lorraine 400 hp., at Cuatro Vientos, Madrid, March 12, 1923. 5,992 m., 19,654 ft.

With Useful Load of 1000 kg. (2204 lb.)

Duration—No record.

Distance—No record.

Altitude—(France) Jean Casale, Blériot Biplane, 4 Hispano 180 hp. engines, at Buc, France, June 1, 1923. 4,990 m., 16,367 ft.

*These records subject to ratification by the F.A.I. after the Regulations covering this new Category will have been formulated at the 1924 June Conference in Paris.

With Useful Load of 1500 kg. (3306 lb.)

Duration—(Great Britain) Capt. C. T. R. Hill, Handley Page W8, 2 Napier-Lion 450 hp., at Cricklewood, England, May 4, 1920. 1 hr. 20 min.
Distance—No record.
Altitude—(Great Britain) Capt. C. T. R. Hill, Handley Page W8, 2 Napier-Lion 450 hp., at Cricklewood, England, May 4, 1920. 4,267 m., 13,996 ft.

With Useful Load of 2000 kg. (4408 lb.)

Duration—(United States) Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec.
Distance—No record.
Altitude—(United States) Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp. at Wilbur Wright Field, Dayton, Ohio, Oct. 25, 1923. 2049 m., 6722 ft.

With Useful Load of 3000 kg. (6612 lb.)

Duration—(United States) Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec
Distance—No record.
Altitude—(United States) Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct 27, 1923. 1,629 m., 5,344 ft.

CLASS C-2 (SEAPLANES)

Returning to Point of Departure

Duration—(United States) Lt. M. A. Schur, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 12, 1923. 11 hr. 18 min. 59 sec.
Distance—(United States) Lt. M. A. Schur, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 12, 1923. 1275 km., 792.25 mi.
Altitude—(France) Maurice Hurel, CAMS36, 2 Hispano-Suiza 300 hp., at St. Raphael, France, Feb. 2, 1924. 6,368 m. 20,886 ft.
Maximum Speed—(Italy) Alexander Passaleva, Marchetti-Savoia, Hispano 300 hp., at Milan, Italy, Dec. 28, 1922. 280.155 km./hr., 174.07 mi./hr.
Speed for 100 km. (62.14 mi.)—(Italy) Captain Biard, Supermarine, Napier-Lion 450 hp., at Naples, Italy, Aug. 12, 1922. 208.818 km./hr., 129.75 mi./hr.
200 km. (124.27 mi.)—(Great Britain) Lt. D. Rittenhouse, U.S.N., Curtiss CR3, Curtiss 500 hp., at Cowes, England, Sept. 28, 1923. 273.411 km./hr., 170.53 mi./hr.
500 km. (310.69 mi.)—(United States) Lt. M. A. Schur, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 6, 1923. 115.87 km./hr., 72 mi./hr.
1000 km. (621.37 mi.)—(United States) Lt. M. A. Schur, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 12, 1923. 113.74 km./hr., 70.49 mi./hr.

With Useful Load of 250 kg. (551 lb.)

Duration—(United States) Lt. H. T. Stanley, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 6, 1923. 10 hr. 23 min. 58 sec.
Distance—(United States) Lt. H. T. Stanley, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 6, 1923. 925 km. 574.75 mi.
Altitude—(United States) Lt. E. B. Brix, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 7, 1923. 3,307 m., 10,850 ft.

With Useful Load of 500 kg. (1102 lb.)

Duration—(United States) Lt. H. E. Holland, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 6, 1923. 7 hr. 35 min. 54 sec.
Distance—(United States) Lt. H. E. Holland, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 6, 1923. 750 km., 466 mi.
Altitude—(United States) Lt. R. L. Fuller, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 2542 m., 8438 ft.

With Useful Load of 1000 kg. (2204 lb.)

Duration—(United States) Lt. R. L. Fuller, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 6, 1923. 2 hr. 45 min. 9 sec.
Distance—(United States) Lt. R. L. Fuller, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 6, 1923. 325 km., 205.2 mi.
Altitude—(United States) Lt. E. E. Dolecek, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 2432 m., 7979 ft.

With Useful Load of 1500 kg. (3306 lb.)

Duration—(United States) Lt. H. T. Stanley, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 2 hr. 18 min.
Distance—No record.
Altitude—(United States) Lt. H. T. Stanley, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 1732 m., 5682 ft.

With Useful Load of 2000 kg. (4408 lb.)

Duration—(United States) Lt. H. E. Holland, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 51 min.
Distance—No record.
Altitude—(United States) Lt. H. E. Holland, U.S.N., F5L, 2 Liberty 400 hp., at San Diego, Calif., June 7, 1923. 1489 m., 1884 ft.

CLASS D. (GLIDERS)

Duration—(France) Alexis Maneyrol, Peyret, at Vauville, France, Jan. 29, 1923. 8 hr. 4 min. 50.4 sec.
Distance—(France) Lieutenant Thoret, Bardin, at Vauville, France, Aug. 26, 1923. 8,100 m., 26,568 ft.
Altitude—(France) E. Descamps, Dewoitine, at Biskra, Algeria, Feb. 7, 1923. 545 m., 1787.6 ft.

American Records which are not World Records

Following is a list of official American records which are not world records, that is, the corresponding world record is in each category higher than the American record. All other American official records, not listed below, are at the same time official world records.

It will be seen from this list that while the United States holds no world records for free balloons, airships and gliders, it holds twenty-seven out of thirty-three world records for airplanes and seventeen out of twenty-one world records for seaplanes. The official world records now existing (free balloons, airships, airplanes, seaplanes and gliders) number seventy, of which forty-four were made in the United States.

CLASS A. (SPHERICAL BALLOONS)

All Categories

Duration—C. B. Harmon, St. Louis to Edina, Mo., Oct. 4, 1909. 4 hr. 26 min.
Distance—A. R. Hawley, St. Louis, to Lake Tchotogama, Canada, Oct. 17-19, 1910. 1887.6 km., 1172.9 mi.

CLASS B. (AIRSHIPS)

Duration—T. S. Baldwin, S.C. No. 1, Fort Meyer, Va., to Cherrydale and return, Aug. 14, 1908. 2 hr. 1 min. 50 sec.
Distance—No record.
Altitude—No record.
Speed—No record.

CLASS C. (AIRPLANES)

Returning to Point of Departure Without Refueling

Altitude—Lt. J. A. Macready, Lepère, Supercharged Liberty 400 hp., at McCook Field, Dayton, Ohio, Sept. 28, 1921. 10,518 m., 34,508 ft.

With Useful Load of 250 kg. (551 lb.)

Duration—Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp. at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec.

Distance—No record

Altitude—Lt. Rutledge Irvine, Davis-Douglas Torpedo Plane, Liberty 420 hp., McCook Field, Dayton, Ohio, April 17, 1923. 3,539 m., 11,609 ft.

With Useful Load of 500 kg. (1102 lb.)

Duration—Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec.

Altitude—Lt. Rutledge Irvine, Davis-Douglas Torpedo Plane, Liberty 420 hp., McCook Field, Dayton, Ohio, April 17, 1923. 3,539 m., 11,609 ft.

With Useful Load of 1000 kg. (2204 lb.)

Duration—Lt. H. R. Harris, U.S.A., Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec.

Altitude—Lt. Rutledge Irvine, Davis-Douglas Torpedo Plane, Liberty 420 hp., McCook Field, Dayton, Ohio, April 17, 1923. 3,539 m., 11,609 ft.

With Useful Load of 1500 kg. (3306 lb.)

Duration—Lt. H. R. Harris, Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 27, 1923. 1 hr. 19 min. 11.8 sec.

Altitude—Lt. H. R. Harris, Barling Bomber, 6 Liberty 400 hp., at Wilbur Wright Field, Dayton, Ohio, Oct. 25, 1923. 2049 m., 6722 ft.

CLASS C-2. (SEAPLANES)

Altitude—Lt. C. F. Harper, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 7, 1923. 4,236 m., 13,898 ft.

Maximum Speed—Bo'sn E. E. Reber, U.S.N., Davis-Douglas, Liberty 400 hp., at San Diego, Calif., June 7, 1923. 165.08 km./hr., 102.57 mi./hr.

Speed for 100 km. (62.14 mi.)—Lt. R. A. Ofstie, U.S.N., TS, Wright-Lawrance 275 hp., at San Diego, Calif., June 13, 1923. 196.27 km./hr., 121.95 mi./hr.

200 km. (124.27 mi.)—Lt. R. A. Ofstie U.S.N., TS, Wright-Lawrance 275 hp., at San Diego, Calif., June 13, 1923. 194.95 km./hr., 121.14 mi./hr.

CLASS D. (GLIDERS)

No records.

This Week's Cover

The remarkable photograph showing the Fighting Plane Squadron One, Aircraft Squadrons, U. S. Battle Fleet, flying in V formation over San Diego harbor, which appears on this week's cover of AVIATION, is due to the courtesy of Lieut. G. T. Cuddihy, U.S.N., executive officer of the squadron.

In favoring us with this and other no less remarkable photographs, Lieutenant Cuddihy writes: "In a recent issue of AVIATION a photograph of a line formation of this squadron was published. We appreciate the publicity given this squadron, but we are quite dissatisfied with the picture published, as it gives a poor impression of the flying ability of this squadron. Enclosed are several photographs of formations by this squadron which you are at liberty to publish."

Fighting (VF) Squadron One changed from Vought VE7 planes to TS1 planes fitted with 200 hp. Wright J1 (Lawrance type) radial air-cooled engines in October, 1923. The complement consists of twelve officer pilots, eighty men and fifteen planes. Although this squadron previously held all gunnery records for Naval fighting planes, it has even bettered these records this year and at present bids fair to capture the gunnery trophy for the year 1923-24. In the recent individual battle practice seven planes of this squadron won the coveted Navy E (Efficiency). Lt. Comdr. H. C. Wick, U.S.N., is commanding officer of this squadron.

AVIATION is convinced that its readers will share its deep admiration for the wonderful proficiency of the Fighting Squadron One, so convincingly displayed in this photograph. The keen judgement of distances and the delicate touch of the stick and throttle such a perfectly spaced close formation requires can only be appreciated to its full value by airmen. On the other hand, such formation flying would be impossible without an engine of the utmost reliability and even running, for the slightest drop in the R.P.M. would instantly break up the formation and, possibly, cause a collision. Hence the Wright J1 air-cooled radial engine deserves particular mention as the motive power of Fighting Plane Squadron One.

Entry Fees for Dayton Air Races

Following is a list of entry fees for the twelve events of the International Air Meet at Dayton, Oct. 2-4, 1924.

Event One—"On to Dayton" Race, no fee.

Event Two—Civilian two-seater race, $50.

Event Three—Civilian two, three and four seater race, $50.

Event Four—Liberty Engine Builders' Trophy Race for two-seater observation planes, $100.

Event Five—Mulvihill Model Trophy Contest, $2.

Event Six—Aviation Country Club of Detroit Trophy Race for commercial planes, $50.

Event Seven—Dayton Daily News Trophy Race for light planes, $50.

Event Eight—Dayton Chamber of Commerce Trophy Race for large capacity planes, $100.

Event Nine—Detroit News Air Mail Trophy Race, no fee.

Event Ten—Speed and Efficiency Race for Light Planes, $50.

Event Eleven—Brig. Gen. William Mitchell Trophy Race for service planes of the First Pursuit Group, Air Service, no fee.

Event Twelve—Pulitzer Trophy Race for high speed planes, $100.

The entry fee will be refunded if the contestant is in his allotted place and starts in the contest, provided the entry is received before Sept. 1. Entries received after Sept. 1, but prior to Sept. 8, will be penalized 25 per cent. Entries received after September 9, but prior to Sept. 15, will be penalized 50 per cent. After Sept. 15 entries will only be accepted with the written consent of all other entrants and the entry fee will not be refunded.

Entry blanks and full particulars regarding entries, rules and prizes for the different events may be obtained upon application to the Contest Committee, Dayton Chapter, National Aeronautic Association, Dayton, Ohio.

Skywriting Co. Wins Patent Suit

The first action brought by the Skywriting Corporation of America against an infringer has been decided in favor of the Skywriting Corporation. The suit was brought by the corporation against Rogers Aircraft, Inc., and certain individuals in respect of infringing flights performed on the Pacific Coast.

The case was tried in the District Court of the U. S. District of California on Dec. 11, 1923, and by a ruling handed down on Feb. 27, 1924, the court sustained Patent No. 922,709 and granted a permanent injunction and damages against the defendants. The court ruled that this patent secured to the Skywriting Corporation of America "the monoply of any sort of signalling or skywriting from an aerial machine by means of the use of coloring matter the output and deposit of which, and therefore the visibility of which, is controlled and determinable by a valve operated in accordance with some predetermined purpose."

By "coloring matter," the court included any matter contrasting with the sky, therefore visible therein. The infringer used a white smoke.

It is understood that the Skywriting Corporation of America owns a number of other patents covering both method and apparatus employed in skywriting.

AIRPORTS AND AIRWAYS

Seattle News

By R. J. Minshall

The U. S. Reserve Airdrome at Seattle, usually known as Sand Point Flying Field, will soon be the scene of active preparations for the Round the World fliers. The preparations provide for facilities for changing the land planes to seaplanes, with which equipment they will fly to Calcutta, India.

Sand Point Flying Field is ideally located for this purpose, being nearly surrounded by Lake Washington. The field is thus a fine combination field, where seaplanes are provided with run-ways, and have clear water stretches of 10 mi. or more in which to maneuver or take-off when heavily loaded. A contract has been let for construction of a dock and seaplane handling equipment.

Lieut. Clayton L. Bissell, A.S., who has been assigned advance officer of this Flight Division, was recently in Seattle, and inspected the facilities here. He also visited the plant of the Boeing Airplane Co., which will cooperate with the Round the World fliers when they reach Seattle. He commented very favorably upon the work being done by the Boeing company.

Davenport News

By Ralph W. Cram

Frank Wallace is looking for a busy year at Wallace Field, Davenport, Iowa. Last year 146 visiting planes landed here and Mr. Wallace and Freddie Carlson, his field manager, hope for twice as many in 1924. Their service station will pump high-test gas into airplane tanks with the same speed it showed last October, when entrants in the On-to-St. Louis race were serviced and off in seven minutes here.

A recent visitor at Wallace Field was Lieut. McIver of St. Paul Field who was ferrying a new DH4B from Dayton to St. Paul. He was making the trip in three hops, via Chanute Field and Wallace Field, to St. Paul.

Sergt. Aaron A. Porter and Private F. B. Lingenfelder hopped in here from Rantoul in a DeHaviland and left shortly for Minneapolis. A few days later they stopped on their way back.

The Davenport Chamber of Commerce has adopted resolutions strongly urging that Congress appropriate for continuing the Air Mail and endorsing the Winslow bill. The Davenport N.A.A. Chapter has 115 members and is anticipating an address by Admiral Fullam next month.

Presentation of Collier Trophy

The formal presentation of the Collier Trophy to the U. S. Air Mail Service took place on Thursday, Feb. 28, 1924, in the offices of the Postmaster General. Col. F. P. Lahm acted as spokesman and formally presented the trophy for 1923 to Postmaster General New, who accepted it in behalf of "the pilots and other personnel of the U. S. Air Mail Service for successfully demonstrating to the world the practicability of night flying in commercial transportation."

Among those present were the Hon. Harry S. New, Postmaster General; Paul Henderson, Second Assistant Postmaster General; Carl F. Egge, General Superintendent of the Air Mail Service; and Dr. J. W. Sutherin, Assistant. Colonel Lahm, Dr. George Lewis, and Porter Adams represented the Collier Trophy Committee.

The Collier Trophy was awarded to the Air Mail Service in 1922 for completing a year's operation along the different routes from coast to coast without a single fatal accident. The Collier Trophy is awarded annually by the National Aeronautic Association for the greatest achievement of aviation in America, the value of which has been demonstrated by actual use during the preceding year.

Morro Castle II Reaches Porto Rico

The Aeromarine metal hull flying boat Morro Castle II, piloted by C. J. Zimmermann, arrived at San Juan, Porto Rico, at 6.00 p. m. Tuesday, March 4. Upon their arrival the party was met by the Mayor of San Juan and a special reception committee including the Insular Band.

The Morro Castle II left New York on Jan. 16, and successfully rode out the terrific rain and wind storm that tore the Shenandoah loose from her mooring mast at Lakehurst.

The flight of the Morro Castle II is the first such flight to be made by a commercial flying boat or airplane between New York and Porto Rico. The route flown covered approximately 3,000 mi., and was done in about 43 hr. actual flying time. However, since leaving New York, the boat has carried passengers at various points along the coast and at Cuba, and has covered more than 7,000 mi. in all.

The Aeromarine metal hull flying boat Morro Castle II, with its new overhang wing bracing struts, which flew from New York to Porto Rico

Beside pilot Zimmermann the boat carried Fred Thompson, special correspondent for the *Outlook*, Elon Jessup, associate editor of *Field and Stream*, and Floyd Walton, mechanic.

The Morro Castle II is expected to return to New York about May 1 when she will have flown about 12,000 mi.

Boeing DH4M1 Plane Tested

Lieut. W. H. Brookley, A. S., recently visited Seattle, and flight tested the Boeing-modified DH. This airplane is a standard DH with a steel body, a thick wing section and gas tanks in the upper wings. The ship came up to all expectations, having a high speed, fully equipped, of 131 mi./hr., and excellent maneuverability. These airplanes have been shipped to McCook Field, where they will undergo further flight tests, and be modified according to the requirements of the Air Service.

Harold T. ("Slim") Lewis also flew the ship for the U. S. Mail Service. As this airplane has a disposable load of 1700 lb., and carries 110 gal. of gasoline, it will be very well suited to the purpose of the Air Mail Service owing to the large available baggage space left in the fuselage by removal of the gas tanks. Pilot Lewis commented very favorably on Seattle's excellent flying weather, saying that the warm all the year round climate would be well suited to Air Mail Service.

In Favor of the Air Mail

The New York Chapter of the American Association of Engineers, at a meeting held March 1, adopted a resolution requesting the directors of the chapter to confer with and advise the Senators and Representatives from New York of their desire to have the appropriation for the Air Mail Service continued as before, and increased, if possible.

Work of the Franco-Roumaine

The Compagnie Franco-Roumaine de Navigation Aérienne was founded on April 23, 1920, and during the last four months of that year operated an air service between Paris and Prague, a distance of 1,000 km.

In 1921, this line was operated from February to November and was extended to Warsaw, thus covering a distance of 1,500 km. The number of airplanes in commission was increased to 57 and that of the engines to 93.

In 1922, the company opened a new line, branching off the old line at Prague, and leading S.E. to Vienna, Budapest, Bucharest, and finally to Constantinople. The system thus attained a total length of 3,144 km. The total personnel was 380, the material comprised 84 airplanes and the number of engines was 139.

In 1923, the Franco-Roumaine extended their S.E. line to Belgrade, the system then covering 3,264 km. The number of airplanes remained practically the same, but the personnel was increased to 500 and the engines to 144 power units. The number of kilometers covered by the airplanes also considerably increased, the highest figure being obtained in May, 1923, when the machines covered a distance of 185,526 km.

In spite of the length of the various stages (from 400-600 km., or 3-5 hr. non-stop flight) the number of breakdowns has become almost negligible, accidents are extremely rare, the regularity of traffic is constantly improving and the financial position of the firm is much better.

The company has organized the first night air service on the Belgrade-Bucharest stage (600 km.) and was the first to utilize three-engined airplanes on a commercial line. It is the adoption of these machines, combined with suitable ground organization, that has permitted the realization of the night service.

The Franco-Roumaine's system is interesting from a political point of view. The fact that an almost daily connection is obtained between the French capital and the capitals of Czechoslovakia, Poland, Austria, Hungary, Yugoslavia and Roumania speaks for itself. The company has signed important agreements with all these States.

The commercial result is, of course, not what could be wished. Like every European company operating an air line, the Franco-Roumaine has to rely on State assistance.

Nevertheless, financial results of operation are steadily improving. In 1923, the freight on certain sections of the line was such that only two-fifths could be accepted. The machines set off loaded to their utmost capacity and the increase of freight from 1922 to 1923 was 147 per cent.

It is proposed to increase the rates considerably in 1924. The question is whether the *paying* users will consent to pay still more for what they already consider dear, but it is not impossible if the increased rates are accompanied by an appreciable improvement in transport conditions. This improvement is what the Franco-Roumaine is going to work for in 1924. They are going to try night flying, which, if carried out with sufficient safety, is certainly one of the best means for attracting the public, in view of the enormous gain of time over the railway.

The year 1924 will then see a new express time table, by which passengers, mail and freight can leave Paris at 11 o'clock in the evening and arrive at Prague next morning, at Warsaw, Vienna and Budapest by mid-day, at Belgrade in the evening, at Bucharest at nightfall, and finally at Constantinople the following morning. In this way aircraft on the Franco-Roumaine lines will take one-third the time occupied by the other means of transport.

New Belgian Air Companies

Two new aviation companies have recently been formed in Belgium. The first is known as the S.O.C.T.A., or Société Colombophile de Transports Aériens, the object of which is to transport racing pigeons to localities in France or neighboring countries from whence they can fly back to Belgium for the pigeon races which are so much in favor in that country. The president of the new company, which has a capital of 1,000,000 francs is M. Jules Jaussens, president of the Fédération des Sociétés Colombophiles, which in Belgium alone had a membership of 350,000.

To give an idea of the importance of the transport of pigeons in Belgium, it is known that 30 million pigeons are sent to France annually for racing purposes, and the advantage of sending them by air instead of by rail is considerable. In the first place the speed of transport by air is such that the birds are caged for a comparatively short time, and the cost of transport and the feeding of the birds is reduced to a minimum.

Similarly, the conditions for flying are eminently suitable for pigeon racing. Weather conditions, radio weather reports from the releasing airdrome and the suitability of airdromes for this purpose as compared to railway sidings where the birds are liable to damage from wires, other trains, etc., are all arguments in favor of air transport.

During the past year a Junkers monoplane was specially fitted up for the transport of pigeons and operated with success by M. Chairdron, and the experience gained from this venture has prompted the formation of the new company.

The other new company is the C.A.B., or Compagnie Aérienne Belge, the purpose of which is to organize aerial photography and aerial survey work in Belgium and the Belgian Congo. The president of the C.A.B. is M. Fernand Jacobs, president of the Belgian Aero Club.

Moscow-Koenigsberg Air Traffic

The Deruluft company which operates the Koenigsberg-Smolensk-Moscow commercial air service, lately issued a report on its operations during the past flying year, May to October, 1923. It appears from this report that the number of regular flights on this line was 160; test and exhibition flights 110; distance covered 212,000 km.; passengers carried 651; freight carried 54.3 tons; number of breakages, one. There only were six interrupted flights, all of which were completed. Of these one was due to lack of fuel owing to strong head winds, three were due to fog, and two to the arrest of the planes by the Lithuanian authorities at Kovno.

The report adds that the Lithuanian and Latvian authorities obstruct the work of the Deruluft in every possible way, so that the planes have to complete the stage of 510 mi. from Smolensk to Koenigsberg in a single flight. It is proposed, however, to alleviate this situation by building an intermediate landing ground on Russian territory, either at Polotzk or at Drissa.

There has been no fatal accident during two years' operations of the line, and the reliability of the service is reckoned at 99 per cent. Of the thirteen machines at present under control of the Deruluft all but one are in perfect order.

Australian Airways

The Western Australian Airways, Ltd., recently totaled 200,000 flying miles' flying on the weekly air mail service they operate between Geraldton and Derby, on the West coast of Australia. The service between these two points, which are 1200 mi. distant from one another, is operated by Bristol Tourer planes. One of these ships, which completed 600 hr. flying without overhaul, was inspected by a government inspector and found to be perfectly airworthy, although some minor replacements were recommended.

The mail carrying contract of this firm was recently renewed by the Australian Minister of Defense.

Italian Airway Plans

The first Italian airway over which a commercial service will be operated is from Turin to Trieste. The service will be run with seaplanes over the available rivers and lakes. At first, only mails and express matter will be carried, but it is proposed to carry passengers when the service will be well under way. The company charged with the operation of the service is the S.I.S.A. of Portorose, near Trieste.

Constantinople-Angora Airway

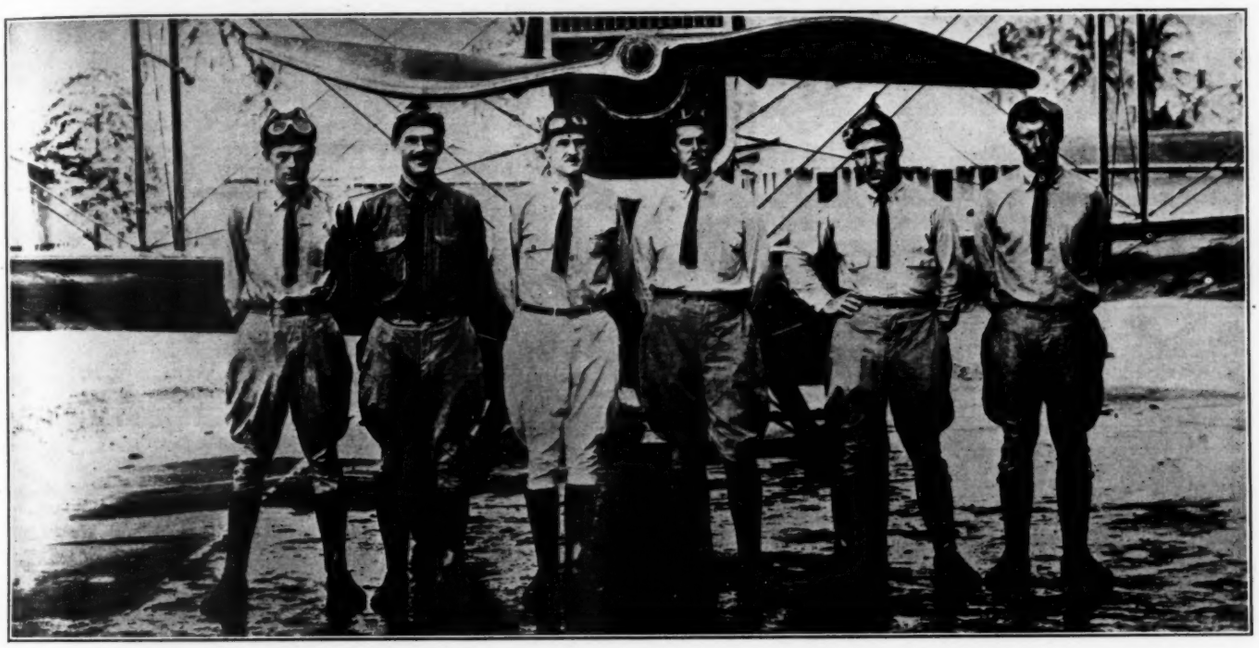
Experiments are being made with a view to establishing an airway service between Constantinople and Angora, a distance of 230 mi. Trial flights are being carried out with Junkers monoplanes. The journey is expected to take 3 hr., and it is hoped to establish a regular service running three times a week.

UNITED STATES AIR FORCES

U. S. ARMY AIR SERVICE

Central American Flight Finished

The Chief of Air Service has received a cablegram that the Air Service flight to the capitals of Central America has safely returned to France Field, Panama Canal Zone. The personnel is in excellent condition and they report an enthusiastic reception by the large crowds of people who turned out to see them in all places which they visited.



The Air Service officers who made the Central American flight—(L. to R.:) Lieut. Leland Miller, photo officer; Lt. Perry Wainer, radio officer; Maj. Roycroft Walsh, flight commander; Maj. Follett Bradley, assistant flight commander; Lieut. Frank F. Albrook, engineer officer; and Lieut. Levi L. Beery, navigation officer

During the course of the flight, photographs were taken of places which appeared to be worthy of consideration as landing fields. When compiled, the data collected by the Army airmen in each country will be presented to its government with a view to its use by that country in the establishment of an airway modelled according to the system used in the United States.

The flight was composed of three airplanes, two DeHavilands and a Martin Bomber. The DeHaviland planes were used for all missions in connection with airway charting, and the Martin Bomber for transporting three enlisted mechanics and radio equipment to maintain communication between the DH planes while out on airway charting missions.

The officers who comprised the flight were as follows: Maj. Royeroft Walsh, flight commander; Maj. Follett Bradley, assistant flight commander; 1st Lieuts. Perry Wainer, L. W. Miller, F. F. Albrook and Levi L. Beery.

Lieut. John M. Clark, the advance officer of the flight, arranged for the itinerary, supplies, landing fields, and other details pertaining to governmental cooperation in the various countries.

Motion Picture Films and Slides for Education

To aid officers of the Air Service, Regular Army, on duty with Reserve and National Guard organizations in their instruction program, the Information Division, Office Chief of Air Service, is prepared to forward to them slides and motion picture films, many of which will undoubtedly prove of great assistance in the work of building up their units. It is believed that the use of this material will aid greatly in the maintenance of morale and the creation of a feeling of closer contact among the officers of Reserve and National Guard organizations.

Letters will be sent to all Air Service officers of the Regular Army on duty with these organizations apprising them of the matter and furnishing them with a list of such slides and films. Arrangements have been made to transport these slides and films on Government bill of lading.

Fast Flying over Imperial Valley District

On a flight recently made from Rockwell Field, Calif. to Yuma, Ariz., for the purpose of transporting Lieut. L. E. Thomas, a Reserve officer, to Rockwell Field, Lieut. V. Hine, the pilot of the plane, made the round trip in 195 min., the return flight from Yuma consuming 95 min.

This brings to mind the fact that it takes a railroad train practically a whole afternoon to cross the desert, and when one travels in the summer time a train ride across this expansive stretch of waste land is attended by considerable discomfort from the intense heat. Considering the great saving in time and the comfort experienced in traveling in the upper air in a cooler atmosphere the advantages of airplane travel are at once apparent.

Preparing for Summer Training Camps

In anticipation of work during the late spring and summer on Curtiss planes for National Guard and Training Camp units, the shops at the Fairfield Air Intermediate Depot, Ohio, have been manufacturing a considerable amount of Curtiss parts in order to keep up the stock to a suitable point, and have also been figuring on special jigs and fixtures for the manufacture of several Curtiss parts, the wartime supply of which has been exhausted.

Army Orders

Sec. Lieut. Alexander George, 5th Cav., Fort Clark, to A.S., Primary Flying School, Brooks Field, for duty and training.

Two months' leave to First Lieut. Carlton F. Bond, A.S., effective Feb. 29, with permission to leave continental limits of U. S.

Maj. Ford Ashman Carpenter, staff specialist, O.R.C., Belleville, Ill., to active duty, Eighth Airship Company, Balloon and Airship School, Scott Field, by April 14, reverting to inactive status April 27.

Resignation Sec. Lieut. Bordner Frederick Ascher, A.S., accepted.

Maj. Rush B. Lincoln, A.S., Scott Field, designated assistant commandant, Balloon and Airship School, that station, on relief of Capt. Laurence F. Stone, A.S., with other duties.

Maj. Percy E. Van Nostrand, A.S., Naval Aircraft Factory, Philadelphia, and temporary duty Naval Air Station, Lakehurst, to Primary Flying School, Brooks Field, for training with class beginning March 17.

Two months' leave to First Lieut. Neal Creighton, A.S., from Feb. 20.

Maj. George H. Brett, A.S., Crissy Field, to Fairfield Air Intermediate Depot, for duty.

Fifteen days' leave to First Lieut. Frederick W. Evans, A.S., from Feb. 19.

First Lieut. Randolph P. Williams, A.S. (Corps of Engineers), relieved from detail in A.S. and training and duty, Primary Flying School, Brooks Field, and attached to Second Engineers.

Night Flying at Fort Bliss

The entire week, Jan. 21 to 26, was spent by the 2nd Division, Air Service, at Fort Bliss, Tex., in night flying training. In all, fourteen flights were made during the week, consisting of practice landings on lighted field, practice flare landings, artillery adjustment, flying closed circuits using all available instruments for navigation. As a final ending of the night flying four planes flew from Marfa, Tex., to Fort Bliss on Jan. 24. The first plane left Marfa at 8.15 p. m. and arrived at Fort Bliss at 10.35 p. m. The other planes left Marfa at intervals of fifteen minutes and arrived at Fort Bliss at intervals of about the same time.

All of these flights were made without incident and the pilots experienced no difficulty in flying the correct course. One thing which impressed all the officers was the utter defenselessness of cities such as El Paso against aircraft unless protected by a sufficient air force. The city could be seen from a point over Sierra Blanca and bombing planes could have entirely destroyed the city without suffering any injury to themselves no matter how well protected by ground defenses.

Boatswain A. F. Dietrich Killed

Boatswain Arthur F. Dietrich, U.S.N., was fatally injured when the Douglas torpedo plane which he was piloting crashed on landing in the Anacostia River, abreast the Naval Air Station, Anacostia, D. C., Monday, March 3. Two other occupants of the plane, W. J. Morris, C.M.M., and E. J. Cinq-Mars, M.M. 1c. escaped with but slight injuries. The fatal accident occurred as Dietrich was bringing the plane to a landing after a test flight with the bombing and torpedo equipment which had recently been installed on the plane. The plane nosed over and landed on its back in the water. Efforts to release Boatswain Dietrich from the pilot's seat were unsuccessful until the plane had been towed to the seawall at the Air Station. It was found that the injuries he had sustained had probably resulted in instant death. A board of inquiry has been convened to examine and report upon the circumstances.

Boatswain Dietrich was one of the most experienced pilots in Naval Aviation, having been identified with aviation in the Navy for the past ten years. He was one of the best known pilots in the Navy and his death will be felt as a personal loss by his many friends in the service.

Boatswain Dietrich was 34 years old at the time of his death. He was born in Rochester, N. Y., and enlisted in the Navy at Grand Rapids, Mich., in October, 1909. He was stationed at the Naval Air Station at Pensacola, Fla., when that station was first organized before the war, and received his designation as Naval Aviator there when a Boatswain's Mate, first class, in October, 1917. He was appointed Ensign (Temporary) on June 1, 1918, and three months later was promoted to Lieutenant, junior grade. He received his permanent rank of Boatswain in December, 1921. During the war he was stationed at Pensacola, the Naval Air Station at Halifax, Nova Scotia, and the Naval Air Station at Rockaway, L. I. He went to Pensacola again in May, 1920, for further training in additional types of Naval aircraft, and went from there to the Aircraft Squadrons operating with the Atlantic, later the Scouting Fleet. He was assigned to duty at the Naval Air Station at Anacostia on May 1, 1923.

CS1 and SDW1 Planes Fly to Florida

Two CS1 and one SDW1 type long distance scouting seaplanes left the Naval Air Station at Anacostia, D. C., on March 1 for Miami, Fla. The planes made the flight by way of Hampton Roads, Va., and Charleston, S. C. The purpose of the flight is threefold: to make long-distance test flights, to participate in the air meet to be held at Miami on March 7 and 8, and to join the Aircraft Squadrons of the Fleet at Key West, where the three planes will be demonstrated for the benefit of the Squadrons. The SDW1 and CS1 planes will not actually take part in any of the races at Miami, but will make numerous flights during the Air Meet, and will be present at all events. After the meet the three planes will proceed to Key West, for the purpose stated above, and from there they will fly to the Naval Air Station at Pensacola, Fla., for further service tests.

The CS1 plane has been recently developed by the Navy Department as a long-distance scouting plane, combining the work of scouting with bomb dropping and torpedo launching. The SDW1 is also a recent addition to the types of Naval aircraft, and is similar to the CS1. The two types have recently been undergoing tests at the Naval Air Station at Anacostia, and the Miami flight will serve as a final test, together with the trials at Key West and Pensacola, before the planes are issued to the service. The CS1 and SDW1 planes are a part of Scouting Plane Squadron Three at the Naval Air Station at Anacostia, D. C., and are commanded on the Florida flight by the Commanding Officer of that organization, Lieut Comdr. C. P. Mason, U.S.N. Lieut. Comdr. H. B. Cecil, U.S.N., head of the Flight Division in the Bureau of Aeronautics, is the Officer-in-Charge of the Navy entries in the races during the Miami Meet. He in a passenger in one of the three planes on the flight from Washington.

Lecture on Naval Aviation

The students of the College of Engineering of New York University were addressed on Naval Aviation by Lieut. John W. Iseman, U.S.N.R.F., Commanding Officer of the Fort Hamilton, N. Y. Naval Reserve Air Station, on Feb. 29. This is the only University in this country conducting a regular undergraduate course in aeronautics, and the lecture was enthusiastically received by the student audience. Nine applications for enrollment in the Naval Aviation training course at Fort Hamilton were received after the lecture.

Langley Demonstrates Deck Flying

A demonstration of flying on and off the deck of the U.S.S. Langley, aircraft carrier, was held at Culebra, P.R., on Feb. 11, for the benefit of Capt. A. W. Marshall, Commander, Aircraft Squadrons Battle Fleet, and some thirty officers of that organization. Three successful flights and landings were made for the benefit of the visitors. After the flights a lecture on "Aircraft Carriers" was given in the wardroom of the Langley by Comdr. Kenneth Whiting, and was attended by the visiting officers.

Battle Fleet Air Squadrons at Porto Rico

The Aircraft Squadrons Battle Fleet, that recently arrived at Culebra, P. R., on the U.S.S. Jason, have constructed a camp at Coontz Field, Culebra, for their use. The camp is called Camp Robison and is fitted with all possible conveniences.

Scouting Fleet Air Squadrons

Scouting operations in fan-like formation with the Fleet, spotting for battleship gunfire, bombing and torpedo attacks against the vessels of the Fleet and radio communication between aircraft and a submerged submarine are a few of the recent activities of the Aircraft Squadrons Scouting Fleet in the combined Fleet maneuvers in the Caribbean.

A sortie with the Fleet was conducted by the Squadrons on Feb. 11 in which the planes assembled at a designated point from which they spread out, in pairs, on every 30 deg. of the compass, Scouting Plane Squadron One taking the southern half of the compass, and Torpedo and Bombing Plane Squadron One taking the northern half. Each plane scouted on a 30 mi. course, and the planes of the Scouting Squadron then moved south 35 mi., retaining their fan-like formation. The planes then reformed and returned, over the Fleet, in a twelve plane formation.

Later in the week a patrol of four planes was maintained, in another problem, to look for the Fleet. After the Fleet had been located the planes of the Squadrons made a bombing and torpedo attack.

One of the most interesting operations carried on was the search for a Marine DT that had had a forced landing. The U.S.S. Teal picked up the plane, while the plane from the Squadrons that was searching for the DT found it and dropped flares over the operations of the Teal, aiding in the recovery of the disabled plane, after darkness had set in. In a report we find "It is possible that in such a case where the lights of the disabled plane were gone and the Very pistol shells expended, these flares would have lighted up the area to such an extent as to allow a tender or tenders to locate a plane down at a great distance."

Spotting with the U.S.S. Wyoming was also done by two planes of the Squadrons for two days, and one plane conducted communication drills with a submarine both submerged and on the surface, to determine the strength and range of the radio equipment under varying conditions.

Exhibition Fliers Commend Navy Parachutes

An unexpected compliment was paid to the parachutes now being issued to the service by two professional exhibition fliers who visited the Naval Air Station at Pensacola during the latter part of January. These men were giving exhibitions of flying, wing walking and parachute jumping at various points throughout the South. They had two parachutes which had been specially made for them. The opportunity was given them to compare their parachutes with the new Navy standard type. After seeing the Navy parachutes the civilian aviators were so impressed with their superiority over the ones that they had that they wished to make an immediate purchase from the small stock at Pensacola, and were much disappointed when they found this was impossible. Their plane was damaged, suffering a broken wing spar, while at Pensacola. The men repaired it themselves, and before testing the repaired plane they requested the loan of one of the Navy parachutes. They desired the assurance of safety afforded by the Navy parachute while testing the structural strength of the plane after it had been repaired.

Marine Aviators Returning to Quantico

The Aviation Division of the Marine Corps Expeditionary Force is now on its way back to Quantico, Va., having left the Caribbean on Feb. 23 and 24, on the U.S.S. Henderson and the U.S.S. Sirius.

The last week of operations consisted of aircraft operations in conjuction with the activities of the field artillery of the Marine troops based at Culebra, P. R. The planes conducted both daylight and night spotting for the field guns. The night operations were carried on with the use of parachute flares dropped from the aircraft, illuminating the targets for the guns.

Lights for Night Flying at San Diego

Lights for night flying have been installed on hangar number two at the Naval Air Station at San Diego, Calif. The lights, three in number, each contain a 1000 watt bulb. During March night flying experiments will be conducted to determine their value. If the tests are satisfactory it is planned to make similar installations on each of the other four new hangars recently erected at the station.

Stimulating Aviation Interest

The Reserve Aviation officers of the Ninth Naval District have shown a great deal of interest in the establishment of five ground school training units in the District. Forty reserve officers have applied for re-enrollment in the various units, which are located at Chicago, Cleveland, Detroit, Indianapolis and Minneapolis.

The ground school instruction at these cities is carried on by qualified Reserve Naval Aviators, and the ground school course used at the Naval Air Station at Pensacola is the basis of instruction. Upon completion of the ground school work the reserve aviators get flight instruction at the Naval Reserve Air Station located at the Great Lakes Training Station. Forty-five days instruction during the first two years is given, and fifteen days instruction per year is given thereafter, together with flights at Great Lakes at any time desired. The Reserve Aviation organization in the Ninth Naval District is doing much to supply an adequate reserve of Naval Aviators whose services in time of emergency will be invaluable. Aviation interest in the District among the people as a whole has been greatly stimulated by this work.

Plane Explodes Floating Mine Scare

What was believed to be a deadly German mine was located by the personnel of Coast Guard Station 179, and a plane from the Naval Air Station at Hampton Roads was despatched to eliminate the floating terror. Upon arrival the pilot of the plane discovered that it was not a German mine, but was a harmless one used by the Fleet in target practice. In order to relieve the fears of all concerned, however, the fixtures on the mine were removed and its harmlessness demonstrated.

To Convert North Island into Paradise

The desert wastes of North Island, San Diego, the site of the Naval Air Station, will soon be enlivened by a touch of green. Over 250 ornamental trees and forty cherry trees are being set out on the island, which does not naturally have a very extensive vegetation. It is felt that the shade and the cherries will have a very uplifting effect on the men of the station.

CALENDAR OF AERONAUTICAL EVENTS

March 7-8.	Curtiss Marine Flying Trophy Race and Flying Meet, Miami, Fla.
March 15.	Start of World Flight of the U. S. Army Air Service, Los Angeles.
March 31.	Closing date for papers submitted to Royal Aeronautical Society of Great Britain for the R38 Memorial Prize.
April 23.	National Balloon Race, San Antonio, Tex.
June 3-11.	International Aircraft Expositon, Prague, Czechoslovakia.
June 15.	Gordon Bennett International Balloon Race, Brussels, Belgium.
June 21.	Annual F.A.I. Conference, Paris, France.
June 22.	Commodore Beaumont International Cup Race for high speed airplanes, Istres, France.
July 5-6.	Zenith International Airplane Efficiency Race, Paris, France.
August.	"Tour de France des Avionnettes." International Round-France race for light airplanes.
Oct. 2-4.	International Air Races, incl. Pulitzer Trophy Race, Dayton, Ohio.
Oct. 24-25.	Schneider Cup Race, Baltimore.
Dec. 17.	Twenty-first anniversary of the first successful airplane flight.

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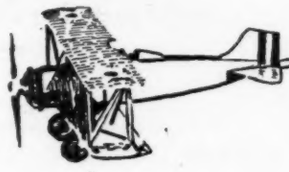

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Naval Orders

Lt. Comdr. Grattan C. Dichman, det. Nav. Air Sta. Hampton Roads to Aircraft Squadrons Battle Fleet.

Lt. Isaac Schlossbach, det. Nav. Air Sta. Coco Solo, C. Z., to Nav. Air Sta., San Diego.

Lt. Henry T. Stanley, det. Aircraft Sqdrns. Battle Fleet to Nav. Air Sta. Coco Solo, C. Z.

Gun. Matthew Kenney, Orders 2-13-24 to Bu. Aero. revoked, continue duty U.S.S. Colorado.

Gun. Thomas A. Marshall, despatch orders 2-12-24 to Bu. Aero. revoked, to continue duty U.S.S. Omaha.

Gun. John T. Robertson, det. Nav. Air Sta. Lakehurst, to Battle Fleet.

Pay Clk. John G. Gruebele (Ret.) det. Nav. Air Sta. San Diego, to home relieved all active duty.

Lt. Robt. W. Fleming, det. Bu. Aero. to U.S.S. Raleigh.

Lt. Edward Mixon, det. Navy Helium Prod. Plant, Fort Worth, Tex. to 11th Nav. District.

Lt. Giochino Varini, det. Aircraft Squadrons Scouting Fleet to Aircraft Squadrons Battle Fleet.

Lt. (jg) Edwin H. Bradley, orders 2-12-24 to Nav. Air Sta. Lakehurst revoked, to continue duty R/S, New York.

Lt. (jg) John E. Welchel, Uncomp. portion orders 2-23-24 to temp. duty Nav. Air Sta. Pensacola revoked, to U.S.S. Texas.

Gunner R. Phillips, det. U.S.S. Wright, to Battle Fleet.

Bosn. Geo. F Kahle, det. U.S.S. Wright, to temp duty Nav. Air Sta. Pensacola, Fla.

Mooring Mast at San Diego under Way

Work on the erection of the mooring mast for the rigid airship Shenandoah at the Naval Air Station at San Diego is progressing rapidly. The work on the foundation is now under way. This mast will be used as a mooring base for the U.S.S. Shenandoah during operations with the Fleet as a scout in the Pacific, and will also serve as a western terminal for trans-continental flights.

Lakehurst to Have Air Circus

Plans for an Air Circus to be held on May 30 are being made at the Naval Air Station at Lakehurst, N. J. The plans include flights of the rigid airship Shenandoah, flights by free ballons, the J type non-rigid airship at the station and airplane acrobatics.

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INDEX TO ADVERTISERS

A

American Propeller & Mfg. Co..... 299

B

Boeing Airplane Co..... 278

C

Chicago Aerial Survey Co..... 299
Classified Advertising..... 298

E

Ericson Aircraft Co..... 299

F

Fentress, A. E., Jr..... 299

G

Gibbons Company, The..... 296
G & O Manufacturing Co..... 299

H

Hamilton Aero Mfg. Co..... 298
Huff Daland Aero Corp..... 299

J

Johnson Airplane & Supply Co..... 298
Jones, Aviator..... 299

L

Lamblin, Etablissements..... 296
Lincoln Standard Aircraft Corp..... 278
Ludington Exhibition Co., Inc..... 299

M

Martin, The Glenn L., Co..... 297

N

Night Aero Advertising Corp..... 296

P

Pioneer Instrument Co..... 299

S

Sellers, Matthew B..... 299
Southland Jobbing House..... 298

T

Thurston, W. Harris & Co., Inc..... 296
Tips & Smith..... 299
Titanine, Inc..... 296

V

Varney Aircraft Co..... 298

W

Warner, Edward P..... 299
Where to Fly..... 294
Wright Aeronautical Corp..... 300

Y

Yackey Aircraft Co..... 299

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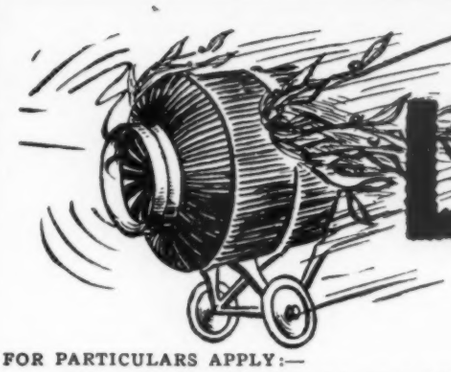

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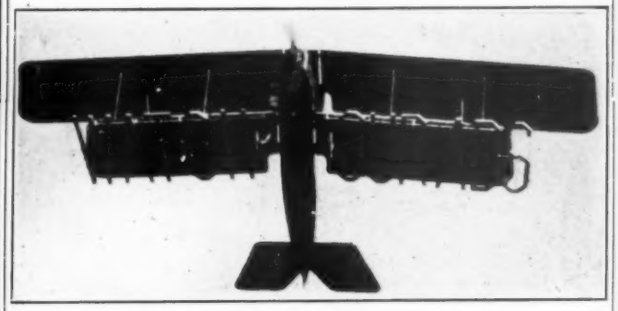

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